

Social Seducement: an experience of gamified social entrepreneurship

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Abstract—Social Seducement is an Erasmus+ project intended to promote social economy entrepreneurship in long-term unemployed people. As result of the shared work of partners from different disciplines, the gamified e-learning platform called Social PlaNet has been developed on the basis of the selection of a good pedagogical approach, the challenges of managing disadvantaged groups of people and the need of increasing motivation while maintaining the process linked to reality. Nowadays, a piloting is being run in five countries in the European Union from which we will obtain the final feedback.

Keywords—*Social Seducement, social economy, pedagogical model, team work*

I. INTRODUCTION

During the economical crisis that Europe has suffered since 2008, a great number of its citizen lost its jobs, meaning that 24% of EU population was at risk of social exclusion in 2011. Moreover, the last report from the European Commission reveals that, in the third quarter of the 2015, the rate of long-term unemployed reaches almost the 18% of the labor force in countries like Greece, for example [1]. In this scenario, one of the most promising alternatives that unemployed people can take is self-employment.

On the other hand, social economy is a *different* kind of economy where the activity “refers to not-for-profit activity geared towards meeting social needs” [2]. Thus, social economy intends to give opportunities to local people at the time that the community is also benefited.

Social Seducement is an Erasmus+ project whose aim is helping people in risk of social exclusion to be re-integrated in the labor market and, consequently, in the society, by promoting social entrepreneurship skills. To develop this idea, we need to keep three elements in mind: 1) social economy has specific features which are different from the *usual* ones, 2) long-term unemployed people can be unmotivated because of the frustration of not finding a job, and 3) social economy

enterprises are usually run in a group form (cooperatives, associations, etc.).

Trying to manage all these characteristics, the initial idea of the Social Seducement project was to develop an ORPG (On-line Role Playing Game) supporting players in: learning about the characteristics of social economy through the Business Model Canvas (BMC) [3] as template and developing: the skills needed to run a social collective enterprise. The partners involved in the project shared their knowledge and experience in different fields (game design, social economy, training for disadvantaged groups, game technical development) to achieve a multidisciplinary and commonly shared vision both of the problem tackled and the possible solutions: Tavistock Institute of Human Relations, coordinator (UK), Universidad Internacional de la Rioja (Spain), Ecobyte and Le Mat (Italy), REVES – European Network of Cities and Regions in the Social Economy (Belgium) and Coompanion (Sweden). In the end, based on the specific needs of the target group and on the peculiar features of social economy, the final solution is a gamified e-learning platform (Social PlaNet).

The project developed along several phases: firstly, there was a need of analyzing the main features of social economy and how our target group was familiar with them. From this analysis, the main training elements could be extracted in order to develop the educational side of the game. At the same time, a storyboard to support the learning process and game challenges was also designed. Next, the process of development of the game resulted, without being exempt from problems, in the platform Social PlaNet. Additionally, one of the needs found during the phase of analysis was related to the support to the learning process players would go through, which was addressed by including the presence of a facilitator (game master) who would be in touch with players throughout the game. Once the platform is finalized, five pilot experiences



in UK, Italy, Spain, Sweden and Belgium will provide a set of results which will serve to validate the platform.

The rest of the paper is organized as follows: section 2 presents the main innovative elements of the Social Seducement project; section 3 explains the foundations on which the learning approach has been developed; section 4 analyzes how the initial proposal changed according to needs found in the first phase; finally, section 5 outlines conclusions and further works.

II. SETTING THE FRAMEWORK FOR THE GAME (AND RELATED LEARNING EXPERIENCE) DESIGN AND DEVELOPMENT

The Social Seducement project tackles the social and economic problem of unemployment in several innovative ways: first, it addresses the socio-economic dimension of unemployment by proposing an active role of disadvantaged categories in fighting unemployment (helping them to become social entrepreneurs); secondly, it addresses the pedagogical dimension of training and re-training actions addressing disadvantaged categories (by proposing a blended, gamified learning model in alternative to traditional, classroom-based courses). Last but not least, it focuses its action on the area of social economy and collective entrepreneurship.

A. What is meant by Social Economy

Social economy has been gaining momentum in European and national-based policies as a mean to complement the decreasing offer of public services caused by severe budget cuts related to the economic crisis.

“Many consider the social economy as an important instrument for re-integrating people into the labor market and into society and for lifting persons out of poverty. Some go even further and perceive this kind of enterprise in general as an alternative to a failing economic system. For a long time, the issue was dealt with predominantly in the framework of policies¹ linked to social inclusion and creation of employment. The focus, however, was above all on employment created for rather than by disadvantaged persons” [4]. Since the late 90s, an active role has been acknowledged to social economy as a proactive contributor to the creation of employment (see, for instance, [5-7]).

In order to build the project architecture supporting the development of the gamified learning solution and of the pedagogical model of the game, the project consortium worked first on defining its area of action in terms of: i) specific dimensions addressed in the social economy sphere, and ii) the target group.

Social Seducement has adopted the definition of Social Economy provided by Social Economy Europe [8], based on seven key principles: 1) the primacy of the individual and the social objective over capital; 2) voluntary and open

¹ Initiatives promoted by the European Commission's DG Employment and Social Affairs and the European Social Fund, with some initiatives, often specifically on cooperatives, launched also by DG Enterprise in the period 1980s –mid '90s.

membership; 3) democratic control by the membership; 4) the combination of the interests of members/users and/or the general interest; 5) the defense and application of the principle of solidarity and responsibility; 6) autonomous management and independence from public authorities; and 7) the essential surplus is used to carry out sustainable development objectives, services of interest to members or of general interest.

Within the Social Economy, Social Seducement addresses the support to the establishment of social economy collective enterprises (across the many available typologies of social enterprises such as: cooperatives, foundations, associations, mutual societies). The collective dimension is vitally important as it stresses the role of peer-to-peer collaboration among members against the individual perspective of company management.

Whilst it is clearly an EU policy priority to encourage (social) entrepreneurship, and the social (and economic) benefits of social enterprises are clear, setting up a business is not easy, and people with disadvantages arguably face particular barriers.

B. Our target group

Social Seducement aims to train people with disadvantages in setting up their own collective social enterprise. The following list shows examples to clarify what is intended as target group of the Social Seducement gamified e-learning platform, according to [9]: any person under 25 or within two years after completing full-time education and who has not previously obtained his or her first regular paid employment; migrant workers moving within the Community or becomes resident in the Community to take up work; members of an ethnic minority within a Member State and who requires development of his or her linguistic, vocational training or work experience profile to enhance prospects of gaining access to stable employment; any person who wishes to enter or to re-enter working life and who has been absent both from work and from education for at least two years, and particularly any person who gave up work on account of the difficulty of reconciling his or her working life and family life; any person living as a single adult looking after a child or children; any person older than 50 or who has not attained an upper secondary educational qualification or its equivalent, who does not have a job or who is losing his or her job; long-term unemployed persons, i.e. any person who has been unemployed for 12 of the previous 16 months, or six of the previous eight months in the case of persons under 25; any person who has not obtained his or her first regular paid employment since beginning a period of imprisonment or other penal measure; any woman in a NUTS (geographical area where average unemployment has exceeded 100% of the Community average for at least two calendar years and where female unemployment has exceeded 150% of the male unemployment rate in the area concerned for at least two of the past three calendar years).

C. Key competences to set up a social economy enterprise

It is quite evident that with the decision to address such a wide and differentiated group, an analysis of its training needs was necessary. This was done by means of desk research, literature review and a consultation with relevant stakeholders. The following results came out of field analysis [4]:

- Soft skills such as planning and goal setting (56.5%), problem solving (54,1%) and strategic thinking (51.8%) as the most relevant in general terms, closely followed by ability to make decisions. Moreover, there seems to be a gap in the training market around those soft skills deemed most important and the size of this gap can vary between countries.
- Interpersonal skills (e.g. capacity to work in team, empathy, capacity to listening ...) are considered as the most relevant, followed by the ability to organize (e.g. self-organize and organize teams and activities) selected by about 70% of respondents. These are considered more important than the more hard or technical business skills, such as “understanding and monitoring the business environment” (selected by about one out of two) and digital skills (one out of five).

D. Drop out risks and engagement factors

According to survey results, a serious ORPG has some specific strengths, namely opportunity for collective-decision making experience without real risk-taking; curiosity; less resistance to express one’s opinion thanks to the use of avatars as well as better adaptability to time/space constraints.

Concerning drop out risks, ‘appeal of the training’, capacity to relate with others digitally and the user-friendliness of the game are the top three factors considered (if bad) to be responsible for not completing training. Interestingly, the game artwork receives the lowest score, something that chimes with findings from a parallel consultation with experts and potential players where the view dominated that the Social Seducement game should clearly market itself as a training tool rather than trying to compete with commercial games. Thus, in addition to pointing to the importance of carefully constructing the training material, these findings lend further evidence to the need of a game facilitator to moderate some of these factors.

As concerns engagement factors: the role of intermediary agencies (like employment agencies, for instance) in recommending the game turns out to be key, followed by user-friendliness of the game and, somehow linked to that, the presence of a facilitators to support players in their learning path through the game steps.

To sum up, survey results matched with experts’ consultation and literature review led to the following key decisions:

- Soft and interpersonal skills would have a key role in the pedagogical model

- Given its specific feature (as well as economic constraints) the game would not compete with commercially available games in the field, so the content of the game would predominate over its graphical aspect.
- The facilitator (or game master) would have a key and active role in guiding players through the game and the learning process supported by it.

III. FOUNDATIONS OF THE PEDAGOGICAL APPROACH

As we presented in [10], we have studied a set of serious games, which have already been used to train skills related to several kinds of jobs. For example, we could mention the blended learning approaches related to manufacturing or any kind of manual work, like furniture manufacturing [11], mechanics mechatronics [12], [13] or carpentry [14], which were mainly focused on teaching students how to use the several machines in the workshop and avoiding the most frequent accidents during their manipulation. We also studied a proposal focused on entrepreneurship, where experts also participated in the process to give expertise to students [15]. Based on these experiences and others in [16], also partially or totally based on playing a specific game developed for learning in several scenarios, we found that students were highly interested in this kind of didactical approach, and they gained experience and motivation. But we also observed how the pedagogical model was usually based on the ADDIE model or any of its variations. Thus, we used ADDIE model to develop the pedagogical approach of Social PlaNet, the e-learning platform, which supports the learning process developed as part of Social Seducement.

On the other hand, since this project is developed in the frame of the Erasmus+ Programme, the learning process had to be in line with the European Qualification Framework (EQF). The EQF is a framework intended to ease an understanding of the different national qualifications in order for students and workers’ qualifications to be comparable in different countries based on common regulation. It covers from basic compulsory education (Level 1) to Doctorate (Level 8) and is “focused on the outcome of learning and the person’s actual knowledge and skills rather than the amount of study needed to complete the qualification programme” [16]. This approach is based on three main elements: 1) knowledge: theoretical contents, 2) skills: logical, intuitive and creative thinking or any other manual dexterity, use of methods, materials, tools and instruments, and 3) competence: described in terms of responsibility and autonomy.

In line with the above specifications, the pedagogical model to be developed would necessarily focus on the acquisition of knowledge, skills and attitudes to develop a social enterprise.

Finally, the third element we managed to develop the pedagogical approach was the set of features differentiating a social economy enterprise from other kind of enterprises. In this regard, as explained in section II, the Tavistock Institute led a comprehensive study to develop a competences portfolio.



As result, the portfolio is composed of seven *competences packages*, which set several related competences. In particular, we have: 1) understanding the social economy, 2) conception of the idea by a group of persons, 3) establish a business plan, 4) management, including communication and marketing, 5) creation of a conductive stakeholder environment, 6) evaluation and impact assessment, and 7) operations.

IV. CHALLENGES OF GAME DESIGN FOR THE SOCIAL ECONOMY

The initial design developed to support the learning process for social economy entrepreneurship evolved significantly along the project. The game designers' proposal went through a quite extensive and complex process to match game technical requirements, learning needs of the target group and specific features of the content to be taught. In this section we present how this design evolved, pitfalls found and the final proposal.

A. Initial game design for Social Seducement

The initial game had to be an ORPG leaning, for the learning part, over Moodle. Its design took into account two main characteristics of serious games: 1) they are games, which means that game mechanics includes lives, possibility of win or loss, and individual scoring although players play in group; and 2) learning contents can be confronted to correct solutions and can be rated with a score according how similar they are. Based on that, we can describe the main elements of the design: learning contents, game mechanics, storytelling and game challenges.

Learning contents would be introduced as stories from real life. To do that, all partners would explore their countries to find social entrepreneurs who wanted to share their experience. Real experiences are highly valuable for this type of learning since running an enterprise involves a long path with different problems and different solutions. And many of the times the best solutions depends on the kind of enterprise, the point of development, etc. Thus, retrieving information about every step from several real experiences is a good option to study both problems and solution.

Taking this in mind, a common interview template was developed to collect the information about different aspects of the process of running the social enterprise. Concretely, information was about how to establish the enterprise, how was the design of the enterprises versus the initial plan, the most important things to do the business work and how to manage the benefits.

Game mechanics seemed to be easy to design since they would be inspired in the traditional serious games. Thus, the game would be played in groups but individual scoring would be the most important element to establish a rank of players. Scoring would be obtained according to the level of correctness of the solution provided, or how similar it would be to the best solution. However, in addition to knowledge, as stated in section II, game mechanics would be linked to the improvement of the different skills and attitudes that a social entrepreneur need to have. In any case, better scoring also meant that one player would win against others losing, being it

possible to have players unable to finish the match because the game is over.

To support the learning process, players would follow the story of a real entrepreneur and have to make the decisions that allow this entrepreneur advance in the process. Decisions made by players could let their enterprise advance in the right path or provoke some problems to be solved. Additionally, problems could be randomly presented during the story, as in real life arise. In those situations, the player would contrast its decisions to the ones made by the real entrepreneur in order to compare results. Since the main game challenge is developing collective entrepreneurship skills, missions would be tied to generating and growing successful businesses within the game, and would be linked to the evolution of players. That way, challenges in the game would be based on the stories collected by the partners around their countries, which will inspire players different ideas, show how to start the process of running a social economy, what problems they can find during it and what options they can manage to solve them.

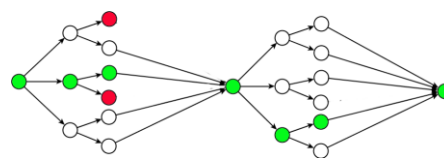


Fig. 1. Example of narrative tree

To achieve that, the storytelling would propose different business simulations from the conception of the idea for a social economy enterprise to the development of a business plan. Along these simulations, players would define different lines of actions and strategies, which would be tested as the game advances. When any of those decisions arrives to a failure, players would be able to re-visit previous simulations to review stories and to discuss new option to take better decisions. During the process, players would be supported by a facilitator, who could suggest specific stories to see problems and solutions related to the one that players were facing at each moment, give some advice or mediate when a decision is difficult. This method should help the trainee assimilating in a more straightforward manner the competences needed applying them in real life situations.

As we can see, challenges and storytelling are closely related since the story somehow guides the player along the challenges and support this process. However, the player needs to have a sense of freedom during the match and not notice that is being guided. Thus, the game allows the player to go to different places of a city where the story takes place (local community), but several requisites would be needed to access each of them. That way, as shown in Fig. 1, the player would not be tied to a linear (boring) process of activities, but it could explore the game world and take different activities according to its improvement in the learning. In Fig. 1, we show different nodes that represent different decisions that a player could make. The red ones are those bringing to a complete failure and avoid the player to continue developing its enterprise. The green nodes represent successful decisions while blank nodes allow the player to continue but can give it

to the need of facing some problems of re-take some decisions.

B. Findings about the game design and the study of the target group

In the process of developing the game design and the analysis of the target group, as well as the several advances in the pedagogical approach, several elements needed to be revisited and several decisions needed to be made.

In the first place, the partner in charge of the technical development found that developing a customized learning platform would better support the learning process. Thus, the platform Moodle was not finally used.

Regarding to the game mechanics, several acts were modified, due to the idea under social economy and group work. Then, having players losing when one wins or the truncating the game after a number of opportunities are wasted seemed not appropriated. Now, game mechanics are based on:

- Everyone has the opportunity of finalizing the learning process, independently of how long it takes (up to two months). There are no winners or losers.
- If a group is unable to find a correct answer or to progress in the game, the facilitator will help to solve the problem, without the possibility of loss the match.
- Rather than a competition between players or groups, the platform is intended to promote collaboration and fosters the process of building the social economy enterprise in groups.
- Avatars for players need to have different features in order to cover the widest spectrum of cultures, capabilities and social positions.

Although random events had been designed as part of the storytelling, they have not be included in the mission structure due to the additional difficulty that they add and the alternative possibility found of fostering motivation by including gamification elements.

Playing the game on-line allows availability-adapted learning and support players group geographically separated. However, once a match was simulated, partners realized that inexperienced players, as the ones in our target group, could have a lack of the basic concepts because of which progressing in the platform could become difficult and frustrating. For that reason, the need for basic guidelines arose. Because of the same reason, a blended approach was considered.

The BMC was confirmed as the base for the game steps articulation. The learning process begins with a set of activities intended to create groups, promote confidence among group members and harmonize the group from a social standpoint. After that, the learning process about social economy and collective enterprises is organized in levels.

C. Social PlaNet: A gamified e-learning platform

Social Planet is a gamified e-learning platform resulting of the Social Seducement Erasmus+ project. This platform’s educational goal is the development of knowledge, skills and attitudes related social entrepreneurship. The learning process will take place in groups, but individual work is also allowed between group meetings.

The learning process is based on the BMC, split on three chunks: business activities, customers and goals. The several parts of the BMC (key partners, key activities, key resources, value proposition, customer relationships, customer segments, channels, cost structure and revenue stream) are allocated in one of the chunks and they are available for players since the beginning, allowing them to visit these chunks in any order. Each chunk is organized in levels with a growing difficulty in terms of knowledge and business development.



Fig. 2. Social PlaNet fictional city

The role of facilitator is key in this platform since it acts as game master, mediator and entertainer of the learning process. To organize a match, the facilitator has to create it and invite players to join to it at a specific time (a meeting is scheduled). When users log into the platform and the match, they enter in a fictional city where they become is a group of people wanting to develop a social economy collective enterprise (Fig. 2). The first action that a user has to do is choosing its avatar by entering at the “Crowndale Flats” (Fig. 2). As stated in section IV.B, a set of avatars are available for users (Fig. 3). Once the avatar is chosen, it cannot be changed in order to avoid misunderstanding from the rest of the group and to fix the virtual personality of each group member.



Fig. 3. Selecting an avatar

After choosing their avatars, the group members assisting to the meeting have to introduce themselves by using the chat incorporated to the platform. One of the group members acts as task leader, which means that it is in charge of guide the task. The platform proposes one of the group members to play that role and the selected user could accept or refuse that role. In each meeting a new group member would be selected to give the opportunity to lead the process to everyone. Once the match has started, the group has to face several missions which will help them to establish their social enterprise. Each chunk is divided into levels. The stories from real social enterprises have been adapted by partners to the specific content in each level and they are available in the platform by the icon “News” (Fig. 4). With this strategy, users have a set of stories available, which they can discover step by step according to their own progress in the BMC. Then, players can reflect how to act in each level according to the inspiration obtained from the several stories for each particular issue. This learning process is gamified by means of a set of individual and group gained when proper actions are performed. These points will be spent to buy several things along the match. That way, the gamification process gets the engagement high while the learning process is being run.



Fig. 4. “News” icon available at the café

The assessment in the game meets the three levels stated at the EQF (knowledge, skills and behavior) trying to develop competences to create and successfully manage a social enterprise. To do that, automatic evaluation (knowledge), self-assessment (skills) and facilitator evaluation (behavior) are combined. Additionally, self-evaluation has also the intention of fostering self-esteem and making aware of participants how well they have improved their skills. Then, two self-evaluations have been included: at the beginning of the match, users have to fill in a questionnaire about their skills related to social economy entrepreneurship; the same questionnaire is included at the end. The platform offers a report of the improvement between values indicated by the user.

Finally, in order to keep the learning process linked to the real world, the platform generates the business plan from the activities performed by the group, which can be used as a starting point to make the social enterprise a reality.

V. CONCLUSIONS AND FURTHER WORK

In this paper we have presented the Erasmus+ project Social Seducement and the gamified platform developed within it, Social PlaNet. Besides, we have explained the main challenges faced during the process, which are the analysis of the features and needs of long-term unemployed people and how to adapt the initial proposal to those needs. Moreover, this process has taken in mind the EQF, which contributes to support the pedagogical approach. Although our first approach was centered in serious games due to their high potential for vocational and job-oriented learning processes, we finally had to switch to a gamified approach. Features of our target group (disadvantaged people), special features of the educational content (social economy enterprises) and the goal of a keep the awareness of the real world made us to realized that a gamified e-learning process would be a better option.

The immediate work we are developing is the piloting of the platform, where three facilitators in each of the countries are guiding a set of thirty-six students in their process of simulating the social enterprise running. We hope to have preliminary results in the fourth quarter of the year.

Acknowledgment

This work is partially supported by the project Social Seducement (Contract number: 2014-1-UK01-KA200-001830 3013-4197), funded by the European Commission under the Erasmus+ Programme, and the Research Institute for Innovation & Technology in Education (UNIR iTED <http://ited.unir.net>) at Universidad Internacional de La Rioja (UNIR).

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